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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/686,502	10/11/2000	Patrick Maguire	34648-00438USPT	5785

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ERICSSON INC.  
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EXAMINER

PHAN, MAN U

ART UNIT PAPER NUMBER

2665

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/686,502

Applicant(s)

MAGUIRE ET AL.

Examiner

Man Phan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 37-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 37-47 is/are rejected.
- 7) ☒ Claim(s) 11, 12 and 48 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Amendment.***

1. This communication is in response to applicant's 12/23/2004 Amendment in the application of Maguire et al. for an "IP-based station system" filed 10/11/2000. This application claims Priority from Provisional Application 60179365 filed 01/31/2000. Claims 1-12 and 37-48 are pending in the application.

In view of applicant's amendment to amend the specification to include the reference signs shown in the drawing, therefore, examiner has withdrawn the objection to the drawing.

***Remarks***

2. Applicant's remark with regard to the rejection under 35 USC 103(a) are persuasive. However, applicant is required to submit a Declaration under 37 CFR.1.132 in support of the Applicant's statement of common ownership, and to overcome a cited patent pursuant to 37 CFR.1.131. Furthermore, for advance prosecution of application, the rejections of record under 35 U.S.C. ' 103 of the claims are withdrawn in view of the newly discovered reference to Subbiah et al. (US#6,366,961) and Ho et al. (US#6,578,082). Accordingly, This action is made Non-Final. Rejections based on the newly cited reference follows.

***Claim Rejections - 35 USC ' 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1038 and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-10 and 37-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subbiah et al. (US#6,366,961) in view of Ho et al. (US#6,578,082).

With respect to claims 1-10 and 37-40, Subbiah et al. (US#6,366,961) disclose a novel method and system for sending data in a mobile communications networks having member stations arranged in IP-based and configuring an interface between a serving GPRS support node and a BSS, according to the essential features of the claims. Subbiah et al. discloses in Figs 1 & 4, 5 block diagrams illustrated the configuration of IP based cellular access network, in which signaling scheme is used to establish connection between the source and destination (Col. 3, lines 26 plus). As seen in Fig. 1, a connection originating from a BS 120-128 is transferred through RNCs 130, 132 to the Core Network 140. The Iu 150, Iur 152, and Iub 154 interfaces are Internet

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Protocol (IP) connections (Col. 4, lines 54 plus). Fig. 5 illustrated the elements required for mini packet switching by a mini packet controller in a RAN 500, in which packet information 532 is provided through the connection interface (Col. 7, lines 3-52). Fig. 4 illustrated the layered model 400 wherein the mini packet switching 410 is performed above the RTP layer 420 (Col. 6, lines 47-61). The "network service" layer is defined in particular in specification *3GPP TS 48.016*. It is recalled that the functions implemented by the network service layer include in particular managing the identifiers of virtual connections used for communication over the "Gb" interface in the BSS GPRS protocol (BSSGP) as defined in particular in specification *3GPP TS 48.018*. It is also recalled that a virtual connection is identified by means of a network service entity (NSE) identifier (NSEI) and by means of a BSSGP virtual connection identifier (BVCI). Furthermore, the network service entity (NSE) provides information transfer capability and services, for example, provides bearer service and capabilities as described by the CCITT in recommendation I.210. It's noted that in BSS Gb protocol stack 102 comprises a Base Station System GPRS Protocol (BSSGP), a Network Service Entity (NSE) and a physical link layer. SGSN Gb protocol stack 104 comprises a Sub-Network Dependent Convergence Protocol (SNDCP), a Logical Link Control (LLC), a BSSGP, a NSE and a physical link layer. NSE comprises a Network Service Control, a User Datagram Protocol (UDP), Internet Protocol (IP) and a data link layer. The data link layer may be, but not limited to, Frame Relay (FR), Asynchronous Transfer Mode (ATM), Ethernet, Synchronous Optical Network (SONET) or Synchronous Digital Hierarchy (SDH). The Gb interface is also explained in detail in the Standard R5/R4/R99 of *3GPP TS 48.018*.

However, Subbiah does not disclose expressly the use of BSSGP Virtual Connection (BVC) signaling functional. In the same field of endeavor, Ho et al. discloses a distributed flow control system and method for GPRS networks to control and regulate data flow between multiple sources and a single destination within GPRS network. Ho teaches in Fig. 4 a block diagram illustrated a protocol stack between a BSS/PCU and a SGSN for the GPRS network, in which the operations of the BSSGP layer 60 include flow control and transmission of LLC frame 39 or data packet frame related information, such as routing and QoS requirements, between the SGSN 24 and the BSS/PCU 28. The data streams transmitted from the SGSN 24 to a cell is grouped together to form a BSSGP virtual circuit (BVC). Flow control between the SGSN 24 and the BSS/PCU 28 is performed both on per BVC and per mobile station basis (Col. 1, lines 53 plus). Furthermore, the signaling between the SGSN and BSC for the establishment of a session is specified for the GSM PS domain in the technical specification 3GPP TS 48.018 V4.0.0: "3rd Generation Partnership Project; Technical Specification Group GSM EDGE Radio Access Network; General Packet Radio Service (GPRS); Base Station System (BSS)--Serving GPRS Support Node (SGSN); BSS GPRS Protocol (BSSGP)", e.g. Release 2000.

Regarding claims 41-47, they are method claims corresponding to the apparatus claims 1-10 and 37-40 above. Therefore, claims 41-48 are analyzed and rejected as previously discussed with respect to claims 1-10, 37-40.

One skilled in the art would have recognized the need for effectively and efficiently configuring Network Service Entity Identifiers utilizing Gb over IP interface in a GPRS network, and would have applied Ho's novel use of a protocol stack in the BSS and the SGSN that includes a BVC signaling functional into Subbiah' configuring an interface between a serving

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GPRS support node and a BSS in IPbased cellular access networks. Therefore, It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Ho et al.'s distributed flow control system and method for GPRS networks based on leaky buckets into Subbiah et al.'s method and apparatus for providing mini packet switching in IP based cellular access networks with the motivation being to provide a IP-based BSS architecture for GPRS/EDGE applications.

***Allowable Subject Matter***

5. Claims 11-12 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for the indication of allowable subject matter: The closest prior art of record fails to disclose or suggest wherein the message distributor unit is operable to route BVCI-based BSSGP packets, and to build a BVCI-to-IP address/port relationship table using a plug'n play application, as specifically recited in the claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Oh et al. (US#6,519,458) is cited to show the wireless data transport method and mobile terminal and interworking function device therefor.

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The Chuah et al. (US#6,704,311) is cited to show the application level switching server for internet protocol (IP) based networks.

The Le et al. (US#6,556,820) is cited to show the mobility management for terminals with multiple subscriptions.

The Leppisaari et al. (US#6,717,925) is cited to show the point to multipoint mobile radio transmission.

The Honkala et al. (US#6,785,287) is cited to show the integrated IP telephony and cellular communication system and method of operation.

The Lioy (US#6,665,537) is cited to show the automatic invocation of mobile IP registration in a wireless communication network.

The Neumann (US#6,792,270) is cited to show the device for determining the base station subsystems involved in a paging, and method for the automatic set up of the device.

The Galyas (US#6,687,226) is cited to show the base station subsystem and method for handling an increase in traffic volume that overloads a terrestrial link in an internet protocol network.

The Feltner et al. (US#6,515,997) is cited to show the method and system for automatic configuration of a gateway translation function.

The Musikka et al. (US#2002/0015392) is cited to show the method and system for optimal routing of calls in a base station subsystem.

The Musikka et al. (US#2001/0030941) is cited to show the resource availability in an IP based network.



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The Bjelland et al. (US#2002/0089949) is cited to show the communication management in mobile networks having split control planes and user planes.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached on Mon - Fri from 6:00 to 3:00.

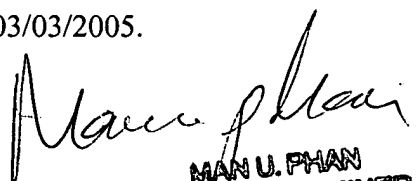
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan

03/03/2005.

  
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PRIMARY EXAMINER